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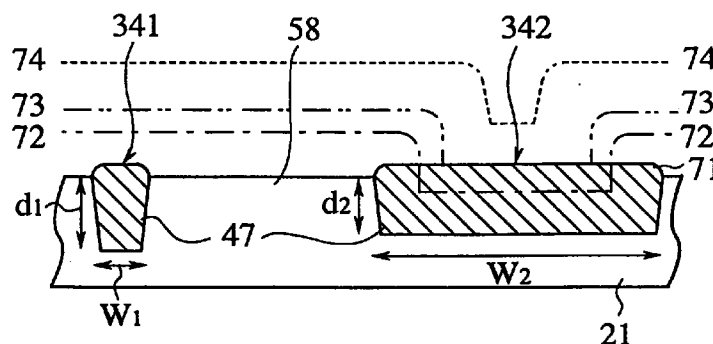
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(54) **Semiconductor device having trench structure for element isolating regions and fabricating method therefor**

(57) A semiconductor device has a novel configuration. The device includes a semiconductor substrate (21), element isolation regions formed on the main surface of the semiconductor substrate and at least one element region formed on the main surface of the semiconductor substrate and enclosed by the element isolation regions. In the device, the depth (d) of each trench

(341, 342) from the main surface to the bottom of the semiconductor substrate is shallow at a region where the trench width (W) is less than a specified length, and it is deep at a region where the trench width (W) is larger than the specified length.

FIG. 7



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EUROPEAN SEARCH REPORT

Application Number
EP 94 10 9085

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
Y	EP 0 346 625 A (TOKYO SHIBAURA ELECTRIC CO) 20 December 1989 * abstract; claims 1,8,9; figures * * column 2, line 19 - line 32 *	1,8	H01L21/76
Y	--- PATENT ABSTRACTS OF JAPAN vol. 011, no. 152 (E-507), 16 May 1987 & JP 61 289642 A (MATSUSHITA ELECTRIC IND CO LTD), 19 December 1986, * abstract *	1,8	
A	--- EP 0 443 879 A (SHARP KK) 28 August 1991 * abstract; figures * * column 2, line 44 - column 4, line 59 * * column 9, line 37 - line 41 *	1,8	
A	--- US 4 139 442 A (BONDUR JAMES A ET AL) 13 February 1979 * abstract; claims 1-3,10,12 * * column 1, line 55 - column 2, line 28 *	1,8	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.5) H01L
Place of search THE HAGUE		Date of completion of the search 25 July 1997	Examiner Wirner, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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